

## TECHNOLOGY READINESS LEVEL: 8

THE TECHNOLOGY HAS BEEN PROVEN TO WORK IN FINAL FORM UNDER EXPECTED CONDITIONS

## TECHNOLOGY SUMMARY

Recent attention has focused on the preparedness of emergency response teams if a terrorist event involving chemical and biological warfare ever occurred. This attention, along with the increased threat to national security, has led to the need for a readily available, easy to use product that would neutralize the adverse effects of these agents. This new technology addresses the need for a general formulation that neutralizes the effects of either chemical toxants or biological toxants. These include any chemical, substance, compound, or agent that can cause death, temporary incapacitation, or permanent harm to humans and animals.

This formulation contains solubilizing compounds, reactive compounds, and sorbent additives that allow the formulation to be pre-mixed and pre-packaged as a multi part kit system where one or more of the parts are packaged in a powered, granulated form. The solubilizing agent serves to effectively render the toxant susceptible to attack, while the reactive compound serves to attack and neutralize the toxant. The sorbent additive is used to dry out the ingredients to allow for pre-packaging.

This formulation can be delivered in the form of foam, spray, liquid, gel, fogs, or aerosols. It does not contain or produce infection, significant adverse health effects, or fatality in animals. This allows for the product to address toxins found in agriculture facilities, food processing facilities, Hazmat situations, and other non terrorism events.

**US PATENT # 7,750,199**

**(SD # 7385)**

**US PATENT # 6,566,574**

**(SD # 6091)**

**US PATENT # 6,723,890**

**(SD # 6899)**

**US PATENT # 7,125,497**

**(SD # 7458)**

**US PATENT # 7,390,432**

**(SD # 7209)**



## POTENTIAL APPLICATIONS

- Homeland Security
- Public health
- Food safety

## TECHNOLOGICAL BENEFITS

- Neutralizes adverse health effects of both chemical and biological warfare agents and toxic industrial chemicals
- Extended shelf life
- Convenient to handle and mix in the field

## TECHNOLOGY INQUIRY?

Contact us for more information  
or licensing opportunities at

**[ip@sandia.gov](mailto:ip@sandia.gov)**

or

**<https://ip.sandia.gov>**